HYDE COUNTY BOARD OF COMMISSIONERS

Hyde County Courthouse Multi-purpose Room

30 Oyster Creek Road, Swan Quarter, NC

and

Ocracoke School Commons Area

120 School House Road, Ocracoke, NC

Hyde County Board of Commissioners
AGENDA ITEM SUMMARY SHEET

Meeting Date: **January 4, 2016**
Presenter: **Chairman Earl Pugh, Jr.**
Attachment: **No**

ITEM TITLE: **OPENING**

SUMMARY:
Call to Order
Opening Prayer
Pledge of Allegiance

Board of Commissioners
Earl Pugh, Jr., Chair
Barry Swindell, Vice-chair
Ben Simmons, III
John Fletcher
Dick Tunnell

COUNTY OF HYDE

30 Oyster Creek Road
PO Box 188
SWAN QUARTER, NORTH CAROLINA 27885
252-926-4400
252-926-3701 Fax

Bill Rich
County Manager

Fred Holscher
County Attorney

Lois Stotesberry, CMC, NCCCC
Clerk to the Board of Commissioners

December 22, 2015

REVISED

PUBLIC NOTICE

The Hyde County Board of Commissioners in accordance with NCGS143-318.9 - NCGS143-318.18 *"Meetings of Public Bodies"* will meet on Monday, January 4, 2016 at:

2:00pm	**Hyde County Government Center to open the Commissioners Meeting, and then travel to Engelhard**
2:30pm	**Tour the Davis Center**
3:00pm	**Tour the Hyde County Department of Social Services (DSS)**
3:15pm	**Tour the Engelhard Water Treatment Plant**
4:00pm	**Tour the Hyde County Airport and the Engelhard Solid Waste Drop-off Site**
5:00pm	**Arrive at "Outta-Da-Box" for Dinner**
5:30pm	**Return to the Hyde County Government Center, Multi-Use Room and the Ocracoke School Commons Room**
6:00pm	**(or as soon thereafter as possible) Conduct the regular Board of Commissioners meeting in accordance with NCGS143-318.10 *"All official meetings of public bodies open to the public"* and enter into closed session in accordance with NCGS143-318.11(a)(6) *"Closed Sessions"* at the Hyde County Government Center, Multi-Use Room, and the Ocracoke School Commons Room using electronic conferencing equipment**

Lois Stotesberry, CMC, NCCCC
Clerk to the Board of Commissioners

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Hyde County Board of Commissioners
AGENDA ITEM SUMMARY SHEET

Meeting Date: **January 4, 2016**
Presenter: **Chairman Earl Pugh, Jr.**
Attachment: **Yes**

ITEM TITLE: **CONSIDERATION OF AGENDA**

SUMMARY: Attached is the proposed Agenda for the January 4, 2016, Regular Meeting of the Hyde County Board of Commissioners.

RECOMMEND: Review, Amend and Approve.

Motion Made By:	Motion Seconded By:	Vote:
___ Earl Pugh, Jr.	___ Earl Pugh, Jr.	___ Earl Pugh, Jr.
___ Barry Swindell	___ Barry Swindell	___ Barry Swindell
___ Dick Tunnell	___ Dick Tunnell	___ Dick Tunnell
___ Ben Simmons	___ Ben Simmons	___ Ben Simmons
___ John Fletcher	___ John Fletcher	___ John Fletcher

AGENDA

HYDE COUNTY BOARD OF COMMISSIONERS' MEETING

2:00pm	**Hyde County Government Center to open the Commissioners Meeting, and then travel to Engelhard**
2:30pm	**Tour the Davis Center**
3:00pm	**Tour the Hyde County Department of Social Services (DSS)**
3:15pm	**Tour the Engelhard Water Treatment Plant**
4:00pm	**Tour the Hyde County Airport and the Engelhard Solid Waste Drop-off Site**
5:00pm	**Arrive at Outta Da Box for Dinner**
5:30pm	**Return to the Hyde County Government Center, Multi-Use Room and the Ocracoke School Commons Room**
6:00pm	**(or as soon thereafter as possible) Conduct the regular Board of Commissioners meeting in accordance with NCGS143-318.10 *"All official meetings of public bodies open to the public"* and enter into closed session in accordance with NCGS143-318.11(a)(6) *"Closed Sessions"* at the Hyde County Government Center, Multi-Use Room, and the Ocracoke School Commons Room using electronic conferencing equipment**

CALL TO ORDER
OPENING

CONSIDERATION OF AGENDA

CONSIDERATION OF MINUTES

1) December 7, 2015 – Organizational and Regular Meeting Minutes

PUBLIC HEARINGS (none)

INTRODUCTION (none)

PRESENTATIONS

1) Proclamation Commending Commissioner Barry Swindell ..... Earl Pugh, Jr.

2) Audit Presentation ..... Thompson, Price, Scott & Adams

3) Proclamation – Radon Action Month ..... David Howard

4) Hyde County Drug Screening Policy ..... Tammy Blake

5) Growing Hyde – Cultivating Economic Opportunities for the Future .....Kris Noble

EMPLOYEE RECOGNITION

PUBLIC COMMENTS

Public Comments are a time for the public to make comments to the County Commissioners. Comments should be kept to three (3) minutes or less and comments should be directed to the entire Board and not to individual members, the staff or to other members of the public. Comments requesting assistance will typically be referred to the County Manager for follow-up or for Board action at a future meeting.

ITEMS OF CONSIDERATION

1) **Resolution**

a. Resolution Condemning Use of the Supplement Process for Southern Flounder ..... Mgr. Rich

b. Resolution Requesting That The U.S. Army Corps of Engineers Amend The Existing Federal Authorization To Be More Inclusive of The Entire Waterway At Hatteras Inlet And Its Connecting Channels ..... Mgr. Rich

c. Resolution to Release Board of Commissioners Closed Session Minutes ..... Mgr. Rich

2) **Appointment**

a ODO Board of Adjustment – 2 vacancies ..... Comm. Fletcher

3) 2016 IRS Standard Mileage Rate ..... Corrinne Gibbs

4) Re-evaluation Update ..... Linda Basnight

5) Cost of Drug Testing ..... Comm. Fletcher

6) Ferrell Duck Update ..... Will Doerfer

7) Commissioner Concerns ..... Comm. Fletcher

a. Duck Gate

b. Dashboard Cameras

c. EMS Finance

8) Update on Tolling Ferry Routes ..... Mgr. Rich

9) Fire Works ..... Mgr. Rich
- **a.** Approve Funding Fire Works
- **b.** County Contracting Agent for Fire Works

10) Noise Ordinance Update ..... Will Doerfer

11) NCACC/ICMA Fellow Monthly Activity Report .....Will Doerfer

BUDGET MATTERS

Health

- **a.** BR10-22 – Family Planning State

MANAGEMENT REPORTS

The Commissioners and County Manager will share with the public their various activities and ideas for continuous improvement of government services to the citizens.

PUBLIC COMMENTS

The public is invited to use this time to make comments to the County Commissioners on items discussed during this meeting and/or matters not discussed earlier in the meeting.

CLOSED SESSION (discussion and possible action if required)

ADJOURN

SUPPLEMENTAL INFORMATION

Department Reports

1) Tax Department (requires signature)
2) Social Services
3) Human Resources

Informational Items

1) Dare County Resolution Condemning Use of the Supplement Process for Southern Flounder
2) Dare County Resolution Requesting That The U.S. Army Corps of Engineers Amend The Existing Federal Authorization To Be More Inclusive of The Entire Waterway At Hatteras Inlet And Its Connecting Channels

3) Currituck County Resolution Requesting the Albemarle Rural Planning Organization to Delay Consideration of Tolling Ferry Routes
4) Hyde County Resolution Establishing Regular Meeting Dates (approved 12-07-2015)
5) Letter from Mary D. Gibbs – EMT's and Paramedics
6) News – Nearly 40 Artists
7) News – Christmas Open House
8) News – Quarter Gardens Pilot Program

Hyde County Board of Commissioners
AGENDA ITEM SUMMARY SHEET

Meeting Date: January 4, 2016
Presenter: Lois Stotesberry, Clerk
Attachment: Yes

ITEM TITLE: CONSIDERATION OF MINUTES

SUMMARY: Attached are the December 7, 2015 Organizational & Regular Meeting Minutes of the Hyde County Board of Commissioners.

RECOMMEND: Review, Amend and Approve.

Motion Made By:	Motion Seconded By:	Vote:
___ Earl Pugh, Jr.	___ Earl Pugh, Jr.	___ Earl Pugh, Jr.
___ Barry Swindell	___ Barry Swindell	___ Barry Swindell
___ Dick Tunnell	___ Dick Tunnell	___ Dick Tunnell
___ Ben Simmons	___ Ben Simmons	___ Ben Simmons
___ John Fletcher	___ John Fletcher	___ John Fletcher

Organizational Meeting Minutes

Board of County Commissioners
Hyde County

Monday, December 7, 2015

Chairman Barry Swindell called the Organizational Meeting of the Hyde County Board of Commissioners to order at 6:00pm on Monday, December 7, 2015, in the Hyde County Government Center, Multi-Use Room, and the Ocracoke School Commons Room using electronic conferencing equipment.

The following members were present on the mainland: Commissioners Earl Pugh, Jr., Ben Simmons and Barry Swindell; County Manager Bill Rich; Special Assistant Hyde County Manager Will Doerfer; Attorney Fred Holscher; Clerk to the Board Lois Stotesberry; and, members of the public. Commissioner Dick Tunnell was absent.

The following members were present on Ocracoke: Commissioner John Fletcher; Public Information Officer Teresa Adams and members of the public.

Following opening prayer by Commissioner Simmons, pledge of allegiance and remembrance of Pearl Harbor anniversary the meeting was called to order.

Consideration of Minutes:
Commissioner Pugh moved to approve the November 2, 2015 Board of Commissioners Regular Meeting Minutes as presented by the Clerk. Mr. Fletcher seconded the motion. The motion passed on the following vote: Ayes – Fletcher, Pugh, Simmons, and Swindell; Nays – None; Absent or not voting – Tunnell.

Commissioner Fletcher moved to open the Organizational meeting. Mr. Simmons seconded the motion. The motion passed on the following vote: Ayes – Fletcher, Pugh, Simmons, and Swindell; Nays – None; Absent or not voting – Tunnell.

Nominations and Appointments:
Commissioner Fletcher moved to nominate Commissioner Pugh for Chairman of the Board of Commissioners. Mr. Swindell seconded the motion. The motion passed on the following vote: Ayes – Fletcher, Pugh, Simmons, and Swindell; Nays – None; Absent or not voting – Tunnell.

Commissioner Pugh assumed his position as Chairman and stated he plans to be as good a chairman as he possibly can.

Commissioner Simmons moved to nominate Commissioner Swindell for Vice-Chairman of the Board of Commissioners. Mr. Fletcher seconded the motion. The motion passed on the following vote: Ayes – Fletcher, Pugh, Simmons, and Swindell; Nays – None; Absent or not voting – Tunnell.

Commissioner Swindell moved to re-appoint Lois Stotesberry for Clerk to the Board of Commissioners. Mr. Fletcher seconded the motion. The motion passed on the following vote: Ayes – Fletcher, Pugh, Simmons, and Swindell; Nays – None; Absent or not voting – Tunnell.

Commissioner Swindell moved to re-appoint Justin Gibbs and Rosemary Johnson for Deputy Clerk(s) of the Board of Commissioners and to appoint PIO Teresa Adams for Deputy Clerk. Mr. Simmons seconded the motion. The motion passed on the following vote: Ayes – Fletcher, Pugh, Simmons, and Swindell; Nays – None; Absent or not voting – Tunnell.

Commissioner Simmons moved to re-appoint Fred Holscher County Attorney for the Board of Commissioners. Mr. Fletcher seconded the motion. The motion passed on the following vote: Ayes – Fletcher, Pugh, Simmons, and Swindell; Nays – None; Absent or not voting – Tunnell.

Oath of Office:
Brandy Pugh, Clerk of Court administered "Oath of Office" to Teresa Adams, Public Information Officer/Deputy Clerk.

Commissioner Fletcher moved to close the Organizational meeting. Commissioner Simmons seconded the motion. The motion passed on the following vote: Ayes – Fletcher, Pugh, Simmons, and Swindell; Nays – None; Absent or not voting – Tunnell.

Commissioner Swindell moved to approve the revised December 7, 2015 Regular Meeting Agenda as presented by the Clerk with addition of Introduction – Teresa Adams, PIO – Biography; add corrected Health Department budget revision No. BR17-16 and add No. BR21-16; and, DSS funds transfer. Mr. Simmons seconded the motion. The motion passed on the following vote: Ayes – Fletcher, Pugh, Simmons, and Swindell; Nays – None; Absent or not voting – Tunnell.

Introduction:
County Manager Rich introduced Teresa Adams, Public Information Officer (PIO) and Virginia Spencer, DSS Board Chair, introduced Laurie Potter, DSS Director.

Employee Recognition:
County Manager Rich and the Board of Commissioners offered their condolences to the family of April Guthrie, Hyde County Dispatch.

Presentation:
Tax Collections Update – Linda Basnight, Tax Administrator, presented update on a November 19th meeting with Manager Rich, Lonnie Baker, Dynamic Data Services and Joe Echel, Custom Computer Software. Upgrades discussed for the Tax Department include: 1) developing a web-site on which taxes due will be shown and, 2) upgrading the tax office tax collection programs to allow the tax office to accept debit/credit card payments, telephone debit/credit card payments and on-line payments. The project will begin in January 2016.

Public Comment:
Chairman Pugh called for comments from the public.

Peter Vankevich – Ocracoke Observer, complimented former PIO Sarah Johnson and welcomed PIO Teressa Adams.

There being no further comments from the public, Chairman Swindell continued the meeting.

Items of Consideration:
Resolution to Adopt Meeting Calendar for 2016
Commissioner Swindell moved to adopt "Resolution No. 2015-12-07 – A Resolution of The Hyde County Board of Commissioners Establishing Regular Meeting Dates". Mr. Fletcher seconded the motion. The motion passed on the following vote: Ayes – Fletcher, Pugh, Simmons, and Swindell; Nays – None; Absent or not voting – Tunnell.

Clerk's Note: A copy of "Resolution No. 2015-12-07 – A Resolution of The Hyde County Board of Commissioners Establishing Regular Meeting Dates" is attached herewith as Exhibit A and incorporated herein by reference.

Reaffirm "Resolution of The North Carolina Hyde County Board of Commissioners In Support of Alternate Methods of Recognition for Veterans Status to WWII Coastwise Merchant Mariners"
County Manager Bill Rich reported Mr. J. Don Horton, President, WW II Coastwise Merchant Mariners, requested the Hyde County Board of Commissioners send a letter to Senator Burr to reaffirm continued support of WW II Coastwise Merchant Mariners.

On May 4, 2015, the Hyde County Board of Commissioners adopted "A Resolution of the North Carolina Hyde County Board of Commissioners In Support Of Alternative Method of Recognition for Veterans Status to WW II Coastwise Merchant Mariners".

Commissioner Fletcher moved to send a letter of support to Senators Richard Burr and Thom Tillis and Representatives Walter Jones and G. K. Butterfield reaffirming the Hyde County Board of Commissioners support of "A Resolution of the North Carolina Hyde County Board of Commissioners In Support Of Alternative Method of Recognition for Veterans Status to WW II Coastwise Merchant Mariners". Mr. Simmons seconded the motion. The motion passed on the following vote: Ayes – Fletcher, Pugh, Simmons, and Swindell; Nays – None; Absent or not voting – Tunnell.

Clerk's Note: A signed copy of "A Resolution of the North Carolina Hyde County Board of Commissioners In Support Of Alternative Method of Recognition for Veterans Status to WW II Coastwise Merchant Mariners" and letter of support is attached herewith as Exhibit B and incorporated herein by reference.

Resolution – "Requesting The Albemarle Regional Planning Organization To Delay Consideration of Tolling Ferry Routes"
The Hyde County Board of Commissioners is requesting that the Albemarle Rural Planning Organization (ARPO): 1) Refrain from considering tolling ferry routes until the 2016 session of the North Carolina General Assembly has an opportunity to explore and consider alternate funding sources for new and replacement ferry vessel and ferry support vessels and, 2) All the members of the ARPO support this endeavor.

Commissioner Simmons moved to adopt "Resolution Requesting The Albemarle Rural Planning Organization (ARPO) To Delay Consideration of Tolling Ferry Routes". Mr. Fletcher seconded the motion. The motion passed on the following vote: Ayes – Fletcher, Pugh, Simmons, and Swindell; Nays – None; Absent or not voting – Tunnell.

Clerk's Note: A signed copy of "Resolution Requesting The Albemarle Regional Planning Organization To Delay Consideration of Tolling Ferry Routes" and letter of support is attached herewith as Exhibit C and incorporated herein by reference.

Payment of Ferry Expenses
Commissioner Fletcher reported Ocracoke citizens oppose ferry tolls.

Commissioner Simmons reported he and the Currituck County representative voted no to ferry tolls at the November RPO meeting.

Ocracoke Development Ordinance (ODO) Board of Adjustments
Commissioner Fletcher reported effective October 15, 2015, Ocracoke Development Ordinance Board of Adjustments Chairman Jim Borland resigned his position with the Board. Mr. Fletcher recommended Wayne Clark to fill the vacancy.

Commissioner Fletcher moved to appoint Wayne Clark to serve on the Ocracoke Development Ordinance Board of Adjustments. Mr. Simmons seconded the motion. The motion passed on the following vote: Ayes – Fletcher, Pugh, Simmons, and Swindell; Nays – None; Absent or not voting – Tunnell.

Noise Update
Will Doerfer, Assistant Manager, reported Manager Rich presented noise control options to the Ocracoke Civic and Business Association (OCBA). Mr. Doerfer will go to Ocracoke next week to measure noise decibels.

Commissioner Fletcher reported Ocracoke is a tourism business and most citizens are not bothered by the noise.

Approval of DSS Board Hiring Laura Potter
County Manager Bill Rich reported Gloria Spencer retired July, 2015 and Suzanne Johnson served as Interim DSS Director. Mr. Rich reported the Hyde County Department of Social Services (DSS) Board has requested Board of Commissioners approval for hiring Laura Potter to fill the vacant DSS Director position.

Commissioner Simmons moved to approve the DSS Board hiring Laura Potter to fill the vacant DSS Director position. Mr. Fletcher seconded the motion. The motion passed on the following vote: Ayes – Fletcher, Pugh, Simmons, and Swindell; Nays – None; Absent or not voting – Tunnell.

Chairman Pugh and the commissioners thanked Ms. Johnson for her service and welcomed Ms. Potter.

Hyde County DSS – Overpayment
Removed from Agenda and correction made by a budget transfer.

Proposed Changes – Hyde County Code – Chapter 36-145 – Article VII Ocracoke Development
Kris Noble, Planning Director, reported the Ocracoke Planning Advisory Board (OPAB) needs to approve suggested changes to the Ocracoke Development Ordinance. Requests for approval will be made at a later date.

Request to Require Ocracoke Planning Advisory Board and The Ocracoke Board of Adjustments (Variance Board) Conduct Joint Meetings
County Manager Bill Rich reported by Resolution adopted November 5, 2015 the Ocracoke Planning Advisory Board requests the Hyde County Board of Commissioners require the Ocracoke Planning

Advisory Board and the Ocracoke Board of Adjustment (Variance Board) to conduct joint meetings a minimum of three (3) times a calendar year.

Commissioner Fletcher moved to adopt "Resolution In Support of Triannual Joint Meetings of The Ocracoke Planning Advisory Board and The Ocracoke Board of Adjustment" requiring triannual joint meetings. Mr. Swindell seconded the motion. The motion passed on the following vote: Ayes – Fletcher, Pugh, Simmons, and Swindell; Nays – None; Absent or not voting – Tunnell.

Clerk's Note: A signed copy of "Resolution In Support of Triannual Joint Meetings of The Ocracoke Planning Advisory Board and The Ocracoke Board of Adjustment" and letter of support is attached herewith as Exhibit D and incorporated herein by reference.

Revolving Loan Request – Michael Casper, DBA Lake Landing Trucking

Kris Cahoon Noble, Planning Director, reported Michael and Jennie Casper would like to start a new business, Lake Landing Trucking Company. The company will provide transportation of goods locally and across the county. Mr. Casper has requested $30,000.00 from the Hyde County Golden LEAF Revolving Loan Fund to purchase the truck and trailer and acquire all permits and licenses. The total cost of the project is approximately $70,000.00. Mr. Casper has secured additional funding from cash on hand and a private donor. Mr. Casper has requested a loan term of seven (7) years with monthly payments of $396.40 at 3.00% interest. The loan will be secured by the truck and trailer which will be used by the business. Ms. Noble requested approval of the loan contingent upon final approval by the Revolving Fund Committee (RLF).

Commissioner Swindell moved to approve a Revolving Loan Fund request of $30,000.00 to Michael Casper, dba – Lake Landing Trucking Co., contingent upon final approval by the Revolving Loan Fund Committee. Mr. Simmons seconded the motion. The motion passed on the following vote: Ayes – Fletcher, Pugh, Simmons, and Swindell; Nays – None; Absent or not voting – Tunnell.

Request for Funding Three Teacher Assistant Positions:

Superintendent Dr. Randolph Latimore presented Hyde County Schools Board of Education Update at the November 2nd Board of Commissioners meeting. Dr. Latimore reported the Hyde County Board of Education has approved his request to request the Hyde County Board of Commissioners fund three (3) teacher assistant positions, one (1) for Ocracoke School and two (2) for Mattamuskeet Elementary School. The positions will be assigned to the early elementary grades. The average annual salary for this position is approximately $37,000.00 each. At that time the Hyde County Board of Commissioners decided to table the request and bring it back on December 7, 2015.

After further discussion offer was made to fund two (2) teacher assistant positions at Mattamuskeet Elementary School for the rest of the fiscal year with no positions being funded at Ocracoke School.

Commissioner Swindell moved to fund $42, 250.00 for two teacher assistant positions for Mattamuskeet Elementary School for the remainder of the fiscal year. Mr. Simmons seconded the motion. The motion passed on the following vote: Ayes – Fletcher, Pugh, Simmons, and Swindell; Nays – None; Absent or not voting – Tunnell.

McClees Consulting Inc. Contract Renewal

Bill Rich, County Manager, reported the December 1, 2014 Contract for Services with McClees Consulting, Inc. has expired. The fee for services requested is $27,500.00 with the first payment due on January 10, 2016.

Commissioner Simmons moved to negotiate the 2016 fee for consulting services with McClees Consulting, Inc. at $25,000.00. Mr. Swindell seconded the motion. The motion passed on the following vote: Ayes – Fletcher, Pugh, Simmons, and Swindell; Nays – None; Absent or not voting – Tunnell.

Beach Access

Kris Noble, Planning Director, will present update on Ocracoke beach access at a later Board of Commissioners meeting.

PILT Program FY2015-16 Funding

Bill Rich, County Manager, reported Hyde County is just one of nearly 1,900 counties in 49 states and three U.S. territories that receive PILT (Payment In Lieu of Taxes) funding. The federal government owns approximately 28 percent of all land in the U.S., and these lands are not taxable by local governments. PILT helps to offset these losses in tax revenues and help communities provide essential services to federal employees and families, the public and users of public lands. Without the certainty of full funding for the PILT program, Hyde County will

be unable to provide their residents with essential services such as education, law enforcement, rescue, road maintenance and public health. Full funding in FY2016 for the PILT program is essential to provide our counties with the certainty they need to plan their own 2016 budgets. Mr. Rich reported Hyde County received $200,000.00 in FY2015 and funds have decreased to $111,000.00 for FY2016. In a letter dated November 17, Manager Rich requested Senators Burr and Tillis and Representatives Jones and Butterfield sign the bipartisan Crapo-Bennet letter in support of PILT. On November 23rd eighty two (82) congressmen signed a letter to Speaker Ryan and Leader Pelosi requesting Congress work together to enact a long-term, sustainable solution to fully fund PILT.

NC MFC Management/ Hyde County Flounder Fishing Economic Impact Statement
Bill Rich, County Manager, reported he attended a recent Marine Fisheries meeting in Dare County where the importance of fishermen and southern flounder fishery's impact on Hyde County economy was discussed. In adopting a supplement to the Southern Flounder Fishery Management Plan, the N.C. Marine Fisheries Commission (NC MFC) has instituted a combination of size limit changes, modifications to fishing gear allowances, total allowable landings and season closures.

Request to Move NC Hwy 45 to US HWY 264
Assistant Manager Will Doerfer reported on discussion with NCDOT Division Engineer Jerry Jennings who will investigate additional signage at the intersection of Highway 45 and 264 By-Pass in Swan Quarter. Mr. Jennings indicated re-routing Highway 45 to run with the US 264 By-Pass is unlikely.

Monthly Activities and Accomplishments Report
Will Doerfer, NCACC/ICMA Management Fellow, presented report of his monthly activity and accomplishments. Mr. Doerfer will go to Ocracoke next week to investigate "duck" complaints on the Island.

Closed Session Minutes
Commissioner Swindell moved to accept Closed Session Minutes for review in accordance with NCGS142-318.10(e). Mr. Simmons seconded the motion. The motion passed on the following vote: Ayes – Fletcher, Pugh, Simmons, and Swindell: Nays – None; Absent or not voting – Tunnell.

Budget Revisions:
Commissioner Swindell moved to approve the following budget revisions:

Health
BR10-16 – Family Planning – State
BR12-16 – Adult Health – Lab Testing Expense
BR13-16 – Family Planning – Lab Testing Expense
BR14-16 – PHPR Program – Contract Employee
BR15-16 – PHPR Ebola Program – Contract Employee
BR16-16 – Vidant Healthy Hyde Grant – Contract Employee
BR17-16 – CC4C – Part-Time Wages and Travel
BR18-16 – Family Planning – Medical Supplies
BR19-16 – General Health – Longevity Pay and Travel
BR20-16 – Adult Health – Interpreter Service
BR21-16 – Communicable Disease - Revenue

Social Services
Funds transfer to cover overpayment for Child Day Care

Mr. Simmons seconded the motion. The motion passed on the following vote: Ayes – Fletcher, Pugh, Simmons, and Swindell; Nays – None; Absent or not voting – Tunnell.

Management Reports:

Commissioner Fletcher – attended various Board meetings on Ocracoke.

Commissioner Simmons – attended the Fairfield Methodist Church Christmas Play. MECHS will be playing basketball at Edenton.

Commissioner Swindell – participated in the Engelhard and Scranton Christmas Parades on December 5th.

Chairman Pugh – attended the Dare County Community Meeting where ferry tolling was discussed and attended Swan Days. Mr. Pugh would like the Board of Commissioners, County Manager, Assistant County Manager to visit Mattamuskeet and Ocracoke Schools, County Departments and Volunteer Fire Departments. He also requests a Board meeting be conducted on Ocracoke.

Commissioner Tunnell – absent.

Manager Rich – reported he attended the Safety Committee, Golden LEAF, NCMF, Ocracoke Ferry; Courthouse Software, Personnel Policy and EMS Building meetings. He participated in the OCBA and ARSWMA meetings via telephone. Mr. Rich provided his November calendar. Mr. Rich also reported he has accepted a position on the Red Wolf Recovery Board.

Public Comments:
Chairman Pugh called for comments from the public.

Tom Pahl, Ocracoke – stated both sides of the noise ordinance discussion have good ideas.

There being no further comments from the public, Chairman Pugh continued the meeting.

Closed Session: (none)

Adjourn:
Commissioner Swindell moved to adjourn the December 7, 2015 Board of Commissioners Meeting. Mr. Fletcher seconded the motion. The motion passed on the following vote: Ayes – Fletcher, Pugh, Simmons, and Swindell; Nays – None; Absent or not voting – Tunnell.

The meeting adjourned at 7:50p.m.

Respectfully submitted:

Minutes approved on the 4th day of January, 2016.

Lois Stotesberry, CMC, NCCCC Clerk, Hyde County Board of Commissioners	Earl Pugh, Jr., Chairman Hyde County Board of Commissioners

Attachment:

Exhibit A: ***"Resolution No. 2015-12-07 – A Resolution of The Hyde County Board of Commissioners Establishing Regular Meeting Dates"***

Exhibit B: ***"A Resolution of the North Carolina Hyde County Board of Commissioners In Support Of Alternative Method of Recognition for Veterans Status to WW II Coastwise Merchant Mariners" and Letter of Support***

Exhibit C: ***"Resolution Requesting The Albemarle Regional Planning Organization To Delay Consideration of Tolling Ferry Routes"***

Exhibit D: ***"Resolution In Support of Triannual Joint Meetings of The Ocracoke Planning Advisory Board and The Ocracoke Board of Adjustment"***

Hyde County Board of Commissioners
AGENDA ITEM SUMMARY SHEET

Meeting Date: January 4, 2016
Presenter: Chairman Earl Pugh, Jr.
Attachment: Yes

ITEM TITLE: COMMENDATION AND PROCLAMATION – COMMISSIONER BARRY SWINDELL

SUMMARY: Chairman Pugh, on behalf of the Hyde County Board of Commissioners, will issue "Commendation and Proclamation" for Commissioner Barry Swindell in recognition of his dedication and leadership role to the Board of Commissioners and the citizens of Hyde County since 2006.

Mr. Swindell was elected to the Board of Commissioners on December 4, 2006; served as Vice-Chairman from December 1, 2008 to February 26, 2010; Interim County Manager from February 4, 2013 to March 1, 2013; Chairman from December 3, 2012 to December 7, 2015; and, continues to serve as Vice Chairman of the Hyde County Board of Commissioners.

RECOMMEND: Congratulations.

Motion Made By:	Motion Seconded By:	Vote:
___ Earl Pugh, Jr.	___ Earl Pugh, Jr.	___ Earl Pugh, Jr.
___ Barry Swindell	___ Barry Swindell	___ Barry Swindell
___ Dick Tunnell	___ Dick Tunnell	___ Dick Tunnell
___ Ben Simmons	___ Ben Simmons	___ Ben Simmons
___ John Fletcher	___ John Fletcher	___ John Fletcher

Commendation and Proclamation

January 4, 2016

By the authority of the Hyde County Board of Commissioners, the following proclamation is hereby issued:

Whereas, Barry Swindell began his service as Hyde County Commissioner December 4, 2006; and,

Whereas, Barry Swindell served as Vice-Chairman of The Board of Hyde County Commissioners from December 1, 2008 to February 26, 2010; and,

Whereas, Barry Swindell served as Chairman of The Board of Hyde County Commissioners from December 3, 2012 to December 7, 2015; and,

Whereas, Barry Swindell served as Interim Hyde County Manager from February 4, 2013 to March 1, 2013; and,

Whereas, Barry Swindell now serves as Vice-Chairman of The Hyde County Board of Commissioners.

Now, Therefore, Be It Resolved that The Hyde County Board of Commissioners hereby commends Commissioner Barry Swindell for his dedication and leadership role as Chairman and Interim Manager to The Board of County Commissioners and The citizens of Hyde County since 2012.

Hyde County Board of Commissioners

_____

Earl Pugh, Jr., Chairman

_____

Barry Swindell
Vice-Chairman

_____

Commissioner Dick Tunnell

_____

Commissioner Ben Simmons

_____

Commissioner John Fletcher

Hyde County Board of Commissioners
AGENDA ITEM SUMMARY SHEET

Meeting Date: January 4, 2016
Presenter: Thompson, Price, Scott, Adams & Co.
Attachment: No

ITEM TITLE: FY2015-2016 AUDIT PRESENTATION

SUMMARY: On June 1, 2015, the Hyde County Board of Commissioners unanimously awarded the FY2015-2016 Hyde County Auditor Contract to Thompson, Price, Scott, Adams & Co. for $22,500.00.

At this time the auditor will present the Hyde County FY2015-2016 audit report.

RECOMMEND: Receive report.

Motion Made By:	___ Earl Pugh, Jr.	**Motion Seconded By:**	___ Earl Pugh, Jr.	**Vote:**	___ Earl Pugh, Jr.
	___ Barry Swindell		___ Barry Swindell		___ Barry Swindell
	___ Dick Tunnell		___ Dick Tunnell		___ Dick Tunnell
	___ Ben Simmons		___ Ben Simmons		___ Ben Simmons
	___ John Fletcher		___ John Fletcher		___ John Fletcher

Hyde County Board of Commissioners
AGENDA ITEM SUMMARY SHEET

Meeting Date: January 4, 2016
Presenter: David Howard
Attachment: Yes

ITEM TITLE: Radon Action Month Proclamation

SUMMARY: January is National Radon Action Month. Radon is the odorless, colorless gas that is the leading cause of lung cancer among non-smokers in the United States. An indoor elevated level of radon is a preventable and correctable problem and testing for radon is simple and inexpensive. The Hyde County Health Department will be offering free test kits throughout the month of January.

RECOMMEND: Proclaim January 2016 as "Radon Action Month" in Hyde County, North Carolina

Motion Made By:	Motion Seconded By:	Vote:
___ Earl Pugh, Jr.	___ Earl Pugh, Jr.	___ Earl Pugh, Jr.
___ Barry Swindell	___ Barry Swindell	___ Barry Swindell
___ Dick Tunnell	___ Dick Tunnell	___ Dick Tunnell
___ Ben Simmons	___ Ben Simmons	___ Ben Simmons
___ John Fletcher	___ John Fletcher	___ John Fletcher

RADON ACTION MONTH

A PROCLAMATION

WHEREAS, radon is a colorless, odorless, naturally occurring radioactive gas that threatens the health of our citizens; and

WHEREAS, according to the U.S. Environmental Protection Agency, radon causes more than 20,000 deaths each year, making it the second leading cause of lung cancer deaths in the United State and the number one cause among non-smokers; and

WHEREAS, a national health advisory was issued by the U.S. Surgeon General in 2005 because breathing indoor radon over prolonged periods can present a significant health risk; and

WHEREAS, according to the U.S. Environmental Protection Agency, one in 15 homes across the country has an elevated radon level; and

WHEREAS, in North Carolina, based on data collected by the Radiation Protection Section in the Division of Health Service Regulation, radon is present at elevated levels in about seven percent of homes; and

WHEREAS, indoor elevated levels of radon is a preventable and correctable problem; and

WHEREAS, testing for radon is simple and inexpensive, ranging from $6 to $30 for do-it-yourself tests with costs of repairs by a professional to reduce the radon level ranging from $1,500 to approximately $2,500; and

WHEREAS, the State's Radon Program and the U.S. Environmental Protection Agency are encouraging Americans to test their homes for radon, mitigate elevated levels of radon, and build new homes with radon-resistant materials and features;

NOW, THEREFORE, the Hyde County Board of Commissioners of the State of North Carolina, do hereby proclaim January 2016 as "RADON ACTION MONTH" in Hyde County, North Carolina and urge our citizens and interested groups to promote awareness of the hazards of radon exposure, encourage citizens to test and mitigate their homes for radon levels and visit www.ncradon.org for additional radon information.

This the _____ day of _____, 2016.

Attest: _____ By: _____

Earl Pugh, Jr., Chairman

Lois Stotesberry, Clerk to Board

County of Hyde

Meeting Date: 1.4.2016

Presenter(s): Tammy Blake

Title: HR Director

Agency/Dept.: Human Resources

Item Title: County Employee Drug Testing

Attachments: No

Description: This presentation will give the Commissioners a brief overview of how drug testing of county employees is carried out.

Times Read: First

Impact on Budget: None

RECCOMMENDATION:

MOTION MADE BY:	**MOTION SECONDED BY:**	**Vote:**	**Aye**
_____ **E. Pugh**	_____ **E. Pugh**	**E. Pugh**	_____
_____ **B. Simmons**	_____ **B. Simmons**	**B. Simmons**	_____
_____ **J. Fletcher**	_____ **J. Fletcher**	**J. Fletcher**	_____
_____ **B. Swindell**	_____ **B. Swindell**	**B. Swindell**	_____
_____ **D. Tunnell**	_____ **D. Tunnell**	**D. Tunnell**	_____

Hyde County Board of Commissioners
AGENDA ITEM SUMMARY SHEET

Meeting Date: **January 4, 2016**
Presenter: **Kris Cahoon Noble**
Attachment: **Yes – Invitation and letter to East Carolina University**

ITEM TITLE: **Growing Hyde – Cultivating Economic Opportunities for the Future**

SUMMARY: The Hyde County Office of Economic Development and the NC Wildlife Resources Commission have been working together along with other partners on a plan of restoration and operation for the Mattamuskeet Lodge.

Our team is planning a legislative event in January to introduce our legislators to Hyde County's current economic development initiatives while specifically focusing on the plan for revitalization and operation for the Lodge. An invitation is attached.

At this event we will highlight the proposed business model, the public private partnership, the renovation redesign and updated costs and the benefits to the county and eastern region economically. Tours of the Lodge, area tours and waterfowl hunting will also be available. This will be the first in a series of legislative functions and has been approved the State Ethics Committee. This event is an introduction to the project. There are plans for a Raleigh based event in March and a larger more promoted event in late fall 2016.

RECOMMEND: **NO ACTION REQUIRED.**

Motion Made By:	Motion Seconded By:	Vote:
___ Earl Pugh, Jr.	___ Earl Pugh, Jr.	___ Earl Pugh, Jr.
___ Barry Swindell	___ Barry Swindell	___ Barry Swindell
___ Dick Tunnell	___ Dick Tunnell	___ Dick Tunnell
___ Ben Simmons	___ Ben Simmons	___ Ben Simmons
___ John Fletcher	___ John Fletcher	___ John Fletcher

Hyde County and the
North Carolina Wildlife Resources Commission
cordially invite you to attend

Growing Hyde

"Cultivating Economic Opportunities for the Future"

January 25th–26th, 2016

Dare to Hyde Adventures
23145 Hwy 264, Swan Quarter, NC

SCHEDULE OF EVENTS:

January 25th

Registration, Receiving and Room Assignments
at Mattamuskeet Outpost 3:00–5:00
Cocktail Hour 5:00–6:30
Dinner/Oyster Roast 6:30–Until
Dinner Program: Economic Development Initiatives Overview

January 26th

Waterfowl Hunt (Optional) 5:00–8:30am
Wildlife and Hyde County Tours (Optional) 9:00–11:00
Aerial Tours (Optional) 9:00–Until
Brunch at Mattamuskeet Lodge 11:00–12:30
Brunch Program: Mattamuskeet Lodge–Yesterday, Today, Tomorrow
Mattamuskeet Lodge Tour 12:30–Until

RSVP to Ashton Godwin
919-616-6507 | ashton.godwin@ncwildlife.org

Rosemary Johnson

From: Kris Noble <knoble@hydecountync.gov>
Sent: Tuesday, December 29, 2015 2:55 PM
To: ohalloranr@ecu.edu; Abdelsalamt@ecu.edu; hollowayj@ecu.edu
Cc: 'Bill Rich'; kleckleyj@ecu.edu; wdoerfer@hydecountync.gov; 'Rosemary Johnson'
Subject: FW: Economic Impact Study - Mattamuskeet Lodge
Attachments: MattamuskeetInvite.pdf

Good afternoon gentlemen.

Hyde County and the NC Wildlife Resources Commission are working together along with other partners on a plan of restoration and operation for the Mattamuskeet Lodge. If you're not familiar with the Mattamuskeet Lodge visit http://mattamuskeetlodge.com/ for more information. Our team is planning a legislative event in January to introduce our legislators to Hyde County's current economic development initiatives while specifically focusing on the plan for revitalization and operation for the Lodge. An invitation is attached.

At this event we will highlight the proposed business model, the public private partnership, the renovation redesign and updated costs and how the project will benefit the county and eastern region economically. Tours of the Lodge, area tours and waterfowl hunting will also be available. This will be the first in a series of legislative functions. This event is an introduction. There will be a Raleigh based event in March and a larger more promoted event in late fall 2016.

I have been working with Dr. James Kleckley in regard to East Carolina COB partnering with Hyde County and the NC Wildlife Resources Commission to develop an economic impact analysis of the project. During December, Hyde Manager Mr. Bill Rich, connected with James Holloway (ECU COB) who in turn referred him to you all: James Kleckley, Bob O'Halloran (ECU COB) and Dr. Tarek Abdel-Salam (Sustainability) via email. Dr. O'Halloran responded with a reply that indicated that some past work had been completed. I have pulled some initial numbers for Hyde Tourism but need help from you and your colleagues at ECU.

While I know a full blown economic impact analysis can't be completed before mid January, I was hoping we could provide some initial projections and lay the ground work for a full report to be completed before we go to the legislature. I would also be interested in other assistance East Carolina could offer in our efforts, particularly utilizing any past work that may contribute to our efforts. I am an ECU alumni (98 MGMT; 99 MBA) and would love to work with East Carolina on bringing economic vitality and sustainability to our region.

Please advise as soon as possible. I am always available on the mobile number listed below and via email. I look forward to talking and hopefully working with you all on this valuable project for Hyde County and eastern North Carolina. Kris

Kristen Cahoon Noble, M.B.A.
Planning & Economic Development Director
Hyde County Office of Planning & Economic Development
30 Oyster Creek Road
PO Box 188
Swan Quarter, NC 27885
Office: (252) 926-4180
Mobile: (252) 542-0802
Fax: (252) 926-3701
knoble@hydecountync.gov

Hyde County Board of Commissioners
AGENDA ITEM SUMMARY SHEET

Meeting Date: **January 4, 2016**
Presenter: **County Manager Bill Rich**
Attachment: **No**

ITEM TITLE: **EMPLOYEE OF THE MONTH**

SUMMARY: Manager Bill Rich will announce the Employee of the Month. The employee will spin the "Wheel of Thanks."

RECOMMEND: Congratulations.

Motion Made By:	Motion Seconded By:	Vote:
___ Earl Pugh, Jr.	___ Earl Pugh, Jr.	___ Earl Pugh, Jr.
___ Barry Swindell	___ Barry Swindell	___ Barry Swindell
___ Dick Tunnell	___ Dick Tunnell	___ Dick Tunnell
___ Ben Simmons	___ Ben Simmons	___ Ben Simmons
___ John Fletcher	___ John Fletcher	___ John Fletcher

Hyde County Board of Commissioners
AGENDA ITEM SUMMARY SHEET

Meeting Date: **January 4, 2016**
Presenter: **Citizens**
Attachment: **No**

ITEM TITLE: **PUBLIC COMMENTS**

SUMMARY: Citizens are afforded an opportunity at this time to comment on issues they feel may be of importance to the Commissioners and to their fellow citizens.

Comments should be kept to (3) minutes and directed to the entire Board, not just one individual Commissioner, staff member or to a member of the audience.

Time for one person cannot be used by another person.

Comments that reflect the need for additional assistance will be directed to the County Manager or referred to a future meeting agenda.

RECOMMEND: Receive comments.

Hyde County Board of Commissioners
AGENDA ITEM SUMMARY SHEET

Meeting Date: January 4, 2016
Presenter: County Manager Bill Rich
Attachment: Yes

ITEM TITLE: RESOLUTIONS

SUMMARY: The Hyde County Board of Commissioners is requesting approval of:

1. A Resolution Condemning The Action Of The North Carolina Marine Fisheries Commission To Use The Supplement Process To Restrict Southern Flounder

2. A Resolution Requesting That The U.S. Army Corps of Engineers Amend The Existing Federal Authorization To Be More Inclusive Of The Entire Waterway At Hatteras Inlet And Its Connecting Channels

3. A Resolution to Release Board of Commissioners Closed Session Minutes

RECOMMEND: Approve.

Motion Made By:	Motion Seconded By:	Vote:
___ Earl Pugh, Jr.	___ Earl Pugh, Jr.	___ Earl Pugh, Jr.
___ Barry Swindell	___ Barry Swindell	___ Barry Swindell
___ Dick Tunnell	___ Dick Tunnell	___ Dick Tunnell
___ Ben Simmons	___ Ben Simmons	___ Ben Simmons
___ John Fletcher	___ John Fletcher	___ John Fletcher

A RESOLUTION
CONDEMNING THE ACTION
OF THE NORTH CAROLINA MARINE FISHERIES COMMISSION
TO USE THE SUPPLEMENT PROCESS TO RESTRICT SOUTHERN FLOUNDER

WHEREAS, during their November 2015 meeting at Jennette's Pier, the North Carolina Marine Fisheries Commission (NCMFC) approved using a controversial "Supplement Process" to close down most of the state's fishing for southern flounder; and

WHEREAS, the established procedure for responsible fisheries governance is through the use of a Fisheries Management Plan (FMP), which is designed to incorporate peer reviewed science, stakeholder input, and other pertinent facts to establish fisheries policies in a deliberate, open, and transparent way; and

WHEREAS, instead of relying on a thoroughly vetted Amendment Process to the southern flounder Fisheries Management Plan, the NCMFC chose instead to invoke the use of the Supplement Process in spite of the fact that there is no scientific evidence to support such a drastic measure that will have draconian consequences; and

WHEREAS, when the NCMFC adopted the Supplement Process they violated and misused the statutory authority granted them in NCGS 113-182.1 which requires that the NCMFC provide a position on the supplement based on science from the Division of Marine Fisheries or from independent experts; and

WHEREAS, the North Carolina Marine Fisheries Commission also chose to ignore the will of the people as expressed in resolutions it received prior to their November meeting from the Counties of Bertie, Camden, Carteret, Currituck, Dare, Hyde, Pasquotank, and Tyrrell opposing the use of the Supplement Process to restrict southern flounder; and

WHEREAS, the arbitrary and capricious action taken by NCMFC at its November 2015 meeting threatens to harm North Carolina's commercial fishermen by depriving them of a traditional source of income that is fundamental to sustaining local economies throughout North Carolina's coastal communities without cause; and

WHEREAS, the Hyde County Board of Commissioners stands ready to vigorously support our Working Watermen in their efforts to prevent the implementation of the Supplement Process and asks all coastal communities to join in this endeavor; and

WHEREAS, the Hyde County Board of Commissioners calls on the North Carolina Marine Fisheries Commission to determine if any changes are in fact needed for the southern flounder Fisheries Management Plan through the established Amendment Process whereby scientific and accurate stock assessment can properly be determined with the benefit of peer review and public input from all stakeholders including elected officials of coastal communities and commercial fishermen.

NOW, THEREFORE, BE IT RESOLVED, that the Hyde County Board of Commissioners strongly urges the North Carolina Marine Fisheries Commission to immediately suspend the use of the Supplement Process for southern flounder and undertake a deliberate, thoughtful, and methodical review of the Fisheries Management Plan to determine what, if any, changes are needed based on peer reviewed science and stakeholder input.

BE IT FURTHER RESOLVED, that the Hyde County Board of Commissioners calls on all coastal communities to adopt similar resolutions supporting North Carolina's working watermen who vitally depend on the southern flounder fishery to provide jobs, generate incomes, provide a freshly caught public trust resource to the tables of North Carolina families, and bolster the economy of North Carolina.

This the 4th day of January, 2016

_____

Earl Pugh, Jr., Chairman

Attest:

_____

Lois Stotesberry, Clerk to the Board

A RESOLUTION
REQUESTING THAT THE U.S. ARMY CORPS OF ENGINEERS AMEND THE EXISTING FEDERAL AUTHORIZATION TO BE MORE INCLUSIVE OF THE ENTIRE WATERWAY AT HATTERAS INLET AND ITS CONNECTING CHANNELS

WHEREAS, the waterway between Hatteras Island and Ocracoke Island, known as Hatteras Inlet and also known as Rollinson Channel, is a unique area in that it provides the only way for local watermen to get direct access to the Atlantic Ocean and for NCDOT to transport millions of people each year between Hatteras and Ocracoke Islands who, because there is no bridge, must travel between the two islands on ferry vessels; and

WHEREAS, the Hatteras Inlet waterway not only provides a direct channel to the Atlantic Ocean for commercial and recreational fishing vessels, it is the means of access for the United States Coast Guard to use when responding to potentially lifesaving ocean rescue missions; and

WHEREAS, Hatteras Inlet is subject to constantly shifting shoals and sandbars posing a clear and present danger for safe navigation between Hatteras and Ocracoke Islands and through the channel to the Atlantic Ocean that is known as the Hatteras Inlet Gorge; and

WHEREAS, the dangerous shoaling at Hatteras Inlet not only threatens the lives and property of commercial and recreational vessels it also jeopardizes the economy of the region by causing irreparable harm to charter boat operators, commercial fishing operations, seafood processing houses, marine repair facilities, and other local businesses on both Hatteras and Ocracoke Islands that depend on the Hatteras Inlet waterway; and

WHEREAS, because the most direct navigational route between Hatteras and Ocracoke Islands, known as the Connecting Route and also known as the old Ferry Route, cannot be used due to shoaling, local vessels and NCDOT ferries are forced to take a time consuming detour through a longer alternate route known as Barney Slough; and

WHEREAS, being forced to use the longer alternate route NCDOT has suffered an increase of nearly one million dollars in costs per year to provide ferry service between Hatteras and Ocracoke Islands; and

WHEREAS, the Hyde County Board of Commissioners has been diligently seeking funding for proactive dredging to secure reliable and cost effective navigational access to enable our working watermen to get to the Atlantic Ocean and for our visitors to safely travel between Hatteras and Ocracoke Islands, both of which are vital to public safety and to sustain the economy of the region; and

WHEREAS, the current Federal Authorization used by the U.S. Army Corps of Engineers was established in the 1940's with boundaries that are no longer relevant given the changes to the inlet over time which has resulted in an authorization that is restricted to only a small portion of the Connecting Channel just off the south end of Hatteras Island and does NOT include the entire Ferry Route to Ocracoke Island or the Hatteras Inlet Gorge to and including the Atlantic Ocean Bar; and

WHEREAS, if the existing Federal Authorization were amended to include the entire Connecting Route, also known as the old Ferry Route, and the Hatteras Inlet Gorge to and including the Atlantic Ocean Bar, as well as the current ferry channel also known as Barney Slough, it would provide the necessary authorization to allow dredging to be done in a comprehensive way that would encompass the entire area that is needed for our local watermen and the NCDOT Ferry Division.

NOW, THEREFORE, BE IT RESOLVED that the Hyde County Board of Commissioners supports the request made by Senator Bill Cook for the U.S. Army Corps of Engineers to amend the existing Federal Authorization to be more inclusive of the entire waterway of the area that is known as Hatteras Inlet.

BE IT FURTHER RESOLVED that for reasons of public safety and economic necessity the Hyde County Board of Commissioners adds its urgent request that the U.S. Army Corps of Engineers amend the existing Federal Authorization by expanding the coverage area to include all channels between Hatteras Island and Ocracoke Island and to also include the Inlet Gorge to and including the Bar for access to the Atlantic Ocean.

This the 4th day of January, 2016

_____

Earl Pugh, Jr., Chairman

Attest:

_____

Lois Stotesberry, Clerk to the Board

Board of Commissioners
Earl Pugh, Jr., Chairman
Barry Swindell, Vice-Chairman
Ben Simmons
John Fletcher
Dick Tunnell

COUNTY OF HYDE
30 Oyster Creek Road
PO Box 188
SWAN QUARTER, NORTH CAROLINA 27885
252-926-4400
252-926-3701 Fax

Bill Rich
County Manager

Fred Holscher
County Attorney

Lois Stotesberry, CMC, NCCCC
Clerk to the Board

A RESOLUTION TO RELEASE BOARD OF COMMISSIONERS CLOSED SESSION MINUTES

WHEREAS, the Hyde County Board of Commissioners has met from time to time in executive session for purposes authorized in accordance with the Public Records Law (NCGS132-1 – 132.10 and the Open Meetings Law - NCGS143-318.9 – 318.18; and,

WHEREAS, pursuant to the requirements of NCGS143-318.11, the Hyde County Board of Commissioners reviewed minutes of all closed session meetings dated (2011 to 07-2015) and make a determination and report in open session that (1) the need for confidentiality still exists as to all or part of those minutes; or (2) that the minutes or portions thereof no longer require confidentiality and should be available for public inspection; and,

WHEREAS, the Hyde County Board of Commissioners has determined that the schedule of minutes of closed session meetings attached hereto as Exhibit "A" no longer require confidential treatment, in whole or in part and the Hyde County Board of Commissioners has found that portions of the minutes to be released be redacted for confidential treatment; and,

WHEREAS, the Hyde County Board of Commissioners has determined that the schedule of minutes of closed session meetings attached hereto as Exhibit "B" still require confidential treatment and will not be made available for public inspection at this time, pursuant to NCGS143-318.11; and,

NOW, THEREFORE, BE IT RESOLVED THAT The Hyde County Board of Commissioners declare:

1: The foregoing recitals are hereby found as fact and incorporated herein by reference.

2: The executive session minutes from those meetings set forth on Exhibit A are hereby released in whole or in part with portions of the minutes redacted for confidential treatment if determined necessary.

3: The executive session minutes from those meetings set forth on Exhibit B still require confidential treatment and will not be released at this time.

4: The County Clerk is hereby authorized and directed to make said minutes available for posting on the Hyde County website for inspection and copying in accordance with the standing procedures of the Clerk's office.

5: That this Resolution shall be in full force and effect from and after its passage and approval in the manner provided by law.

This the 4th day of January, 2016.

By: _____
Earl Pugh, Jr., Chairman

Attest: _____
Lois Stotesberry, Clerk to Board

Hyde County Board of Commissioners
AGENDA ITEM SUMMARY SHEET

Meeting Date: January 4, 2016
Presenter: John Fletcher
Attachment: No

ITEM TITLE: **Board Appointments for the Ocracoke Board of Adjustments**

SUMMARY: The following board members have been recommended for appointment to the Ocracoke Board of Adjustments. Terms will be staggered at three (3) years, two (2)years and one (1) year.

1. **Jake Johnson – 3 years**
2. **Tim Fields – 2 years**
3. **Bill Monticone – 2 years**
4. **Daphne Bennick – 2 years**

Wayne Clark was appointed to the Ocracoke Board of Adjustments effective 12/7/15 with a term of three (3) years. This will leave two vacancies on the board. When appointed, the last two board members will have a term of one (1) year.

RECOMMEND: **APPROVE APPOINTMENT OF RECOMMENDED BOARD MEMBERS.**

Motion Made By:	Motion Seconded By:	Vote:
___ Earl Pugh, Jr.	___ Earl Pugh, Jr.	___ Earl Pugh, Jr.
___ Barry Swindell	___ Barry Swindell	___ Barry Swindell
___ Dick Tunnell	___ Dick Tunnell	___ Dick Tunnell
___ Ben Simmons	___ Ben Simmons	___ Ben Simmons
___ John Fletcher	___ John Fletcher	___ John Fletcher

Hyde County Board of Commissioners
AGENDA ITEM SUMMARY SHEET

Meeting Date: January 4, 2016

Presenter: Corrinne Gibbs

Attachment: Yes

ITEM TITLE: 2016 IRS STANDARD MILEAGE RATE

SUMMARY: The IRS has decreased its standard mileage rate from $0.575 to $0.54 for 2016.

RECOMMEND: We recommend the Board adopt the IRS standard mileage rate for 2016 of $0.54.

Motion Made By:	Motion Seconded By:	Vote:
___ Earl Pugh, Jr.	___ Earl Pugh, Jr.	___ Earl Pugh, Jr.
___ Barry Swindell	___ Barry Swindell	___ Barry Swindell
___ Dick Tunnell	___ Dick Tunnell	___ Dick Tunnell
___ Ben Simmons	___ Ben Simmons	___ Ben Simmons
___ John Fletcher	___ John Fletcher	___ John Fletcher

2016 Standard Mileage Rates for Business, Medical and Moving Announced

IR-2015-137, Dec.17, 2015

WASHINGTON — The Internal Revenue Service today issued the 2016 optional standard mileage rates used to calculate the deductible costs of operating an automobile for business, charitable, medical or moving purposes.

Beginning on Jan. 1, 2016, the standard mileage rates for the use of a car (also vans, pickups or panel trucks) will be:

- **54 cents per mile for business miles driven**
  down from 57.5 cents for 2015

- 19 cents per mile driven for medical/moving purposes
  down from 23 cents for 2015

- 14 cents per mile driven in service of charitable organizations

Hyde County Board of Commissioners
AGENDA ITEM SUMMARY SHEET

Meeting Date: January 4, 2016
Presenter: Linda Basnight, Tax Administrator
Attachment: No

ITEM TITLE: UPDATE ON RE-EVALUATION

SUMMARY: Tax Administrator Linda Basnight will present update on Hyde County Tax Re-evaluation.

RECOMMEND: Receive Report

Motion Made By:	Motion Seconded By:	Vote:
___ Earl Pugh, Jr.	___ Earl Pugh, Jr.	___ Earl Pugh, Jr.
___ Barry Swindell	___ Barry Swindell	___ Barry Swindell
___ Dick Tunnell	___ Dick Tunnell	___ Dick Tunnell
___ Ben Simmons	___ Ben Simmons	___ Ben Simmons
___ John Fletcher	___ John Fletcher	___ John Fletcher

Hyde County Board of Commissioners
AGENDA ITEM SUMMARY SHEET

Meeting Date: January 4, 2016
Presenter: Commissioner John Fletcher
Attachment: No

ITEM TITLE: COST OF DRUG TESTING

SUMMARY: Commissioner Fletcher will discuss the cost of drug testing county employees.

RECOMMEND: Discussion.

Motion Made By:	Motion Seconded By:	Vote:
___ Earl Pugh, Jr.	___ Earl Pugh, Jr.	___ Earl Pugh, Jr.
___ Barry Swindell	___ Barry Swindell	___ Barry Swindell
___ Dick Tunnell	___ Dick Tunnell	___ Dick Tunnell
___ Ben Simmons	___ Ben Simmons	___ Ben Simmons
___ John Fletcher	___ John Fletcher	___ John Fletcher

Hyde County Board of Commissioners
AGENDA ITEM SUMMARY SHEET

Meeting Date: January 4, 2016
Presenter: Will Doerfer, NCACC/ICMA Fellow
Attachment: Yes

ITEM TITLE: Ferrell Duck Update

SUMMARY: Assistant County Manager Will Doerfer will present update on the Ocracoke Ferrell duck population.

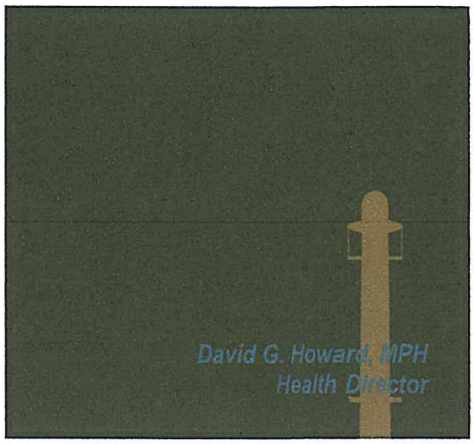
RECOMMEND: Discussion.

Motion Made By:	Motion Seconded By:	Vote:
___ Earl Pugh, Jr.	___ Earl Pugh, Jr.	___ Earl Pugh, Jr.
___ Barry Swindell	___ Barry Swindell	___ Barry Swindell
___ Dick Tunnell	___ Dick Tunnell	___ Dick Tunnell
___ Ben Simmons	___ Ben Simmons	___ Ben Simmons
___ John Fletcher	___ John Fletcher	___ John Fletcher

Hyde County Health Department

P.O. Box 100
1151 Main Street
Swan Quarter, N.C. 27885

Phone (252) 926-4200
Fax (252) 926-0021



December 10, 2015

MEMO: Duck fecal matter in populated areas on Ocracoke Island and risks to human health

To: Bill Rich, County Manager, Hyde County NC

From: David Howard, Director of Public Health, Hyde County NC

Potentially there are real risks to human health from wild migratory and non-migrating ducks including viral (avian influenza strains), bacterial (fecal borne), and parasitic (fecal borne). Associated articles and web links from reputable sources are provided for further reading.

If the reported presence of migratory ducks, which are reported to no longer migrate but remain in place year-round, on and around the populated area of Ocracoke Island in Hyde County North Carolina are leaving great amounts of feces in public places where there is heightened risk for human exposure to and/or contact with the duck feces, then the risk for disease transmission is believed to be raised. Another issue of concern is the large amount of feces that is deposited directly into Silver Lake (or any other nearby water catchment area) and/or flows into a body of water via rain or surface cleaning. Disease and infections can occur with human contact where there is potentially high resulting fecal bacteria content in surface water.

Our recommendation is for significant reduction in potential exposure of humans to such duck fecal matter by whatever means deemed necessary and prudent for the purpose of greatly reducing the risk of disease transmission to adults, children, and especially immune compromised individuals.

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2749972/

http://www.cdc.gov/niosh/nas/RDRP/appendices/chapter6/a6-133.pdf

http://www.cdc.gov/parasites/swimmersitch/faqs.html

Swimmer's Itch FAQs

What is swimmer's itch?

Swimmer's itch, also called cercarial dermatitis, appears as a skin rash caused by an allergic reaction to certain microscopic parasites that infect some birds and mammals. These parasites are released from infected snails into fresh and salt water (such as lakes, ponds, and oceans). While the parasite's preferred host is the specific bird or mammal, if the parasite comes into contact with a swimmer, it burrows into the skin causing an allergic reaction and rash. Swimmer's itch is found throughout the world and is more frequent during summer months.

How does water become infested with the parasite?

The adult parasite lives in the blood of infected animals such as ducks, geese, gulls, swans, and certain mammals such as muskrats and raccoons. The parasites produce eggs that are passed in the feces of infected birds or mammals.

If the eggs land in or are washed into the water, the eggs hatch, releasing small, free-swimming microscopic larvae. These larvae swim in the water in search of a certain species of aquatic snail.

If the larvae find one of these snails, they infect the snail, multiply and undergo further development. Infected snails release a different type of microscopic larvae (or cercariae, hence the name cercarial dermatitis) into the water. This larval form then swims about searching for a suitable host (bird, muskrat) to continue the lifecycle. Although humans are not suitable hosts, the microscopic larvae burrow into the swimmer's skin, and may cause an allergic reaction and rash. Because these larvae cannot develop inside a human, they soon die.

What are the signs and symptoms of swimmer's itch?

Symptoms of swimmer's itch may include:

- tingling, burning, or itching of the skin
- small reddish pimples
- small blisters

Within minutes to days after swimming in contaminated water, you may experience tingling, burning, or itching of the skin. Small reddish pimples appear within twelve hours. Pimples may develop into small blisters. Scratching the areas may result in secondary bacterial infections. Itching may last up to a week or more, but will gradually go away.

Because swimmer's itch is caused by an allergic reaction to infection, the more often you swim or wade in contaminated water, the more likely you are to develop more serious symptoms. The greater the number of exposures to contaminated water, the more intense and immediate symptoms of swimmer's itch will be.

Be aware that swimmer's itch is not the only rash that may occur after swimming in fresh or salt water.

Do I need to see my health care provider for treatment?

Most cases of swimmer's itch do not require medical attention. If you have a rash, you may try the following for relief:

- Use corticosteroid cream
- Apply cool compresses to the affected areas
- Bathe in Epsom salts or baking soda
- Soak in colloidal oatmeal baths
- Apply baking soda paste to the rash (made by stirring water into baking soda until it reaches a paste-like consistency)
- Use an anti-itch lotion

Though difficult, try not to scratch. Scratching may cause the rash to become infected. If itching is severe, your health care provider may suggest prescription-strength lotions or creams to lessen your symptoms.

Can swimmer's itch be spread from person-to-person?

Swimmer's itch is not contagious and cannot be spread from one person to another.

Who is at risk for swimmer's itch?

Anyone who swims or wades in infested water may be at risk. Larvae are more likely to be present in shallow water by the shoreline. Children are most often affected because they tend to swim, wade, and play in the shallow water more than adults. Also, they are less likely to towel dry themselves when leaving the water.

Once an outbreak of swimmer's itch has occurred in water, will the water always be unsafe?

No. Many factors must be present for swimmer's itch to become a problem in water. Since these factors change (sometimes within a swim season), swimmer's itch will not always be a problem. However, there is no way to know how long water may be unsafe. Larvae generally survive for 24 hours once they are released from the snail. However, an infected snail will continue to produce cercariae throughout the remainder of its life. For future snails to become infected, migratory birds or mammals in the area must also be infected so the lifecycle can continue.

Is it safe to swim in my swimming pool?

Yes. As long as your swimming pool is well maintained and chlorinated, there is no risk of swimmer's itch. The appropriate snails must be present in order for swimmer's itch to occur.

What can be done to reduce the risk of swimmer's itch?

To reduce the likelihood of developing swimmer's itch

- Do not swim in areas where swimmer's itch is a known problem or where signs have been posted warning of unsafe water.
- Do not swim near or wade in marshy areas where snails are commonly found.
- Towel dry or shower immediately after leaving the water.
- Do not attract birds (e.g., by feeding them) to areas where people are swimming.
- Encourage health officials to post signs on shorelines where swimmer's itch is a current problem.

More on: Protecting Yourself from Recreational Water Illnesses

(/healthyswimming/index.htm)

This information is not meant to be used for self-diagnosis or as a substitute for consultation with a health care provider. If you have any questions about the parasites described above or think that you may have a parasitic infection, consult a health care provider.

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Review

Ducks: The "Trojan Horses" of H5N1 influenza

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Abstract Wild ducks are the main reservoir of influenza A viruses that can be transmitted to domestic poultry and mammals, including humans. Of the 16 hemagglutinin (HA) subtypes of influenza A viruses, only the H5 and H7 subtypes cause highly pathogenic (HP) influenza in the natural hosts. Several duck species are naturally resistant to HP Asian H5N1 influenza viruses. These duck species can shed and spread virus from both the respiratory and intestinal tracts while showing few or no disease signs. While the HP Asian H5N1 viruses are 100% lethal for chickens and other gallinaceous poultry, the absence of disease signs in some duck species has led to the concept that ducks are the "Trojan horses" of H5N1 in their surreptitious spread of virus. An important unresolved issue is whether the HP H5N1 viruses are maintained in the wild duck population of the world. Here, we review the ecology and pathobiology of ducks infected with influenza A viruses and ducks' role in the maintenance and spread of HP H5N1 viruses. We also identify the key questions about the role of ducks that must be resolved in order to understand the emergence and control of pandemic influenza. It is generally accepted that wild duck species can spread HP H5N1 viruses, but there is insufficient evidence to show that ducks maintain these viruses and transfer them from one generation to the next.

Keywords Avian influenza, ducks, H5N1, waterfowl.

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Introduction

Avian influenza is caused by type A viruses of the family *Orthomyxoviridae*. The influenza A viruses infect primarily free-living aquatic birds, and they are classified by their hemagglutinin (HA) and neuraminidase (NA) surface glycoproteins. All 16 HA and 9 NA subtypes have been isolated from aquatic birds; wild ducks are the main reservoir. The viruses cause asymptomatic or low pathogenic infection in these natural hosts.[1] However, certain strains of influenza A virus have crossed the host range barrier and infected other species, including humans. These viruses are the source of the influenza pandemics that emerge at irregular intervals.[1,2]

The H5 and H7 subtypes are of particular concern because they can become highly pathogenic (HP), causing systemic illness and death in both avian and mammalian species, including humans.[2] The H5N1 virus that emerged in Asia in 1996 is unique among the HP avian influenza (HPAI) viruses in that it has continued to circulate in avian species for more than a decade and has spread to more than 60 countries in Eurasia (http://www.who.int/csr/disease/avian_influenza/en/). While the H5N1 HPAI viruses are 100% lethal to chickens and gallinaceous poultry, they often cause asymptomatic infection in some species of domestic and wild ducks. These "silent spreaders" of H5N1 HPAI viruses are therefore referred to as "Trojan horses".[3–5] Clearly, ducks play a complex and vital role in the biology and the overall natural history of influenza, including H5N1 HPAI viruses.

Ecology of ducks and their role in avian influenza

Ducks are members of the subfamily Anatinae, which contains most species of anserine birds. This subfamily is nearly cosmopolitan in distribution, and its members occupy almost all aquatic habitats. The ecology of these birds, summarized in Figure 1, facilitates the maintenance and spread of avian influenza viruses. Although human influenza A isolates and the currently circulating H5N1 HPAI viruses typically infect the upper respiratory tract, the primary site of infection in ducks is the intestine.[6] Avian influenza viruses enter the environment when the host defecates or drools, and they then infect susceptible hosts as they feed and drink. Avian influenza virus replication has been observed in the respiratory tract,[6] but the contribution of this site to maintenance of

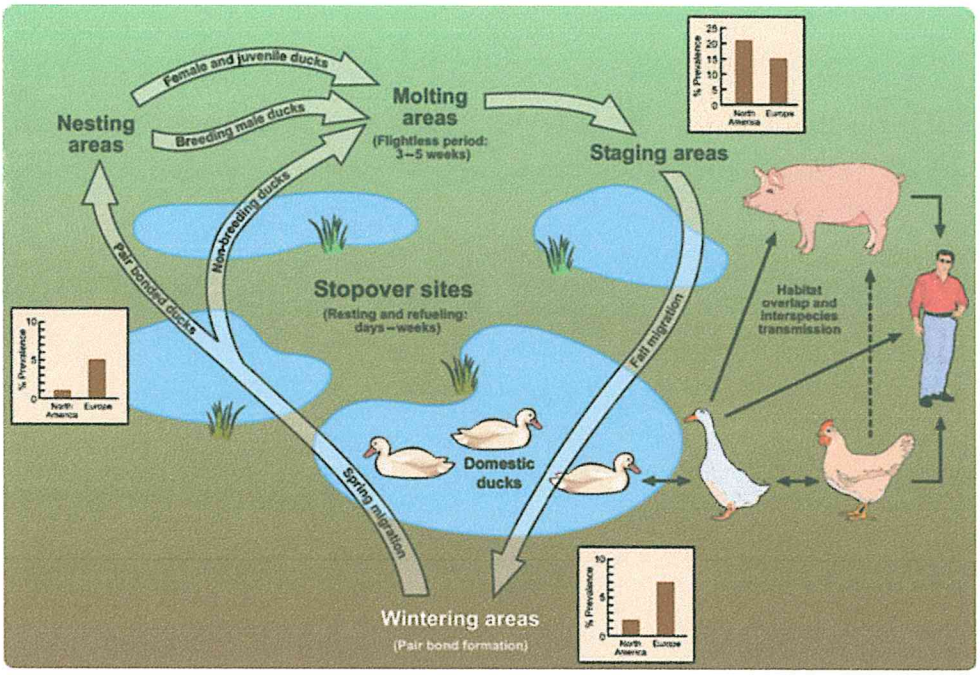

Figure 1. Overview of the annual movement and behavior of migratory ducks and their role in interspecies transmission. During spring and fall migration, the ducks rest and feed for a few days to weeks at numerous stopover sites (wetlands, lakes, or ponds) along the migration route. The length of stay and the aquatic habitat allows the transmission of influenza viruses to and from the domestic duck populations. Domestic ducks that become infected are likely to maintain the virus locally and increase the probability of its spread to other species. In the diagram, solid arrows indicate confirmed routes of transmission of LPAI and/or HPAI viruses between species. The dashed line represents a probable but unconfirmed route of transmission. The graphs indicate the average prevalence of low-pathogenic avian influenza in North American and European duck populations during 3 stages of the annual migration.[10,16]

infection in the population is unresolved. Specifically, fecal shedding of H4N7, H7N3, and H11N9 virions from experimentally infected mallard ducks persists longer and at higher titers than tracheal shedding.[6] When a large number of birds roost on a small pond (for example, in the staging/marshalling areas), as many as 10^{10} $EID_{50} \bullet g^{-1} \bullet d^{-1}$ infectious virions are estimated to enter the environment in the fecal matter of each infected duck.[6] Further, avian influenza viruses are stable in water[1,7] and have been isolated from the surface of ponds containing a large number of waterfowl.[8,9] Although aerosol transmission cannot be dismissed, the larger number of positive cloacal than tracheal swabs, the high fecal virus titer, and the stability of the virions in water suggest that low-pathogenic avian influenza (LPAI) viruses persist in duck populations through fecal-oral transmission.[1] This mechanism could partially explain the higher prevalence of infection in surface-feeding (dabbling) ducks than in diving ducks that typically feed in deeper water.[10]

Surveillance data suggest year-round transmission of avian influenza viruses within duck populations. The prevalence of infection exhibits an annual cyclical pattern in both North American[1,11] and Eurasian[12] duck populations (Figure 1), peaking before and during the fall migration as a result of the influx of immunologically naïve juveniles.[1,9,10,13] Experimentally infected white Pekin ducks have shed virus for more than 3 weeks after inoculation.[3,14] Coupled with limited morbidity and serum antibody response,[3] infected birds are likely to shed virus during the first few weeks of the fall migration, dispersing it along their numerous migration corridors. However, the prevalence of infection is much lower along the migration routes and at the wintering grounds than at the marshalling areas.[9,12,15,16] This disparity may reflect the development of immunity to circulating virus subtypes within the duck population or a decline in transmission because of population dispersal.[13] In general, prevalence of infection is higher at the wintering grounds and spring nesting sites in duck populations from Europe than in North American populations (Figure 1). The most likely explanation for this difference is random variation, since surveillance studies from multiple areas in North America and in Europe often obtain slightly different prevalence values in the duck populations. Many factors can affect prevalence including, but not limited to, the size of the duck population, sampling location, and time of collection. Thus, the few multi-year studies that exist likely exemplify the variation that one would observe if additional sampling sites were included in the studies, and not the differences in geography between Europe and North America.[16] Prevalence is at its lowest

during the spring migration but increases again after the breeding season, when the ducks have moved to the molting and staging areas.[11,13,16] It is not clear how the duck population acquires avian influenza viruses during the spring of every year. Infectious virions may persist through the winter in the frozen waters of the breeding areas and reinfect the ducks when they return in the spring.[1,6] Alternatively, the duck populations may carry the viruses throughout the entire migration. Year-round prevalence in the ducks supports the latter, although persistence in the frozen habitats could play a role in the perpetuation of the viruses.[10]

Some virus subtypes are isolated more frequently than others.[10,11] Three HA subtypes, H3, H4, and H6, are common in both North American and European ducks,[11,12] and the most prevalent subtype combinations in both areas are H4N6 and H6N2.[16] Explanations vary for why certain HA and NA subtypes (and combinations) are common or rare in wild birds. The general hypothesis is that these subtypes likely have the highest fitness, with replication rates balanced by a level of virulence that sufficiently increases transmission probability to the level where infection in the next cohort of birds is almost guaranteed. It is speculated that this could be largely influenced by the functional balance between HA binding affinity and NA enzymatic activity.[17] Although the H6 gene is of Eurasian origin and is widely distributed in North American ducks, genomic analysis of viruses suggests limited intercontinental exchange between Eurasia and the Americas.[18] Therefore, novel viral genotypes must arise via mutation and reassortment of the genomes in circulation within a specific geographic area. The marshalling areas provide such an opportunity by attracting populations of ducks from various breeding areas and migration corridors, with each population harboring a potentially different combination of subtypes.[16] Coinfection of ducks with two or more virus subtypes is common,[19] as is reassortment,[14] and emergent strains that are most virulent to gallinaceous poultry can have low pathogenicity in the duck hosts.[20] However, the role of ducks in the maintenance and spread of influenza viruses, and especially in the emergence of novel genotypes, appears to depend on their migratory behavior. Specifically, ducks that migrate annually are likely to spread influenza viruses along the migration routes, primarily by exposing the resident and domestic duck populations at the numerous stopover sites.[10,16,21] In contrast, domestic and resident ducks maintain the viruses in close proximity to other species and have been implicated in the spread of both LPAI and HPAI viruses to domestic poultry and terrestrial birds.[20,22,23]

Pathobiology of avian influenza in ducks

Low-pathogenic avian influenza

LPAI viruses can pass through the upper digestive tract of ducks and replicate in the lower intestinal tract without causing clinical manifestations of disease.[3,6] Further evidence that the intestinal tract is the target organ of LPAI viruses in ducks includes the replication of virus in the lower intestinal tract, but not in the lungs, after direct inoculation into the crop and rectum[6] and high fecal virus titers after intravenous inoculation.[3] The specific site of LPAI virus replication is believed to be the crypts of Lieberkühn in the large intestine.[3]

The other potential target organ for LPAI viruses in ducks is the respiratory tract. Lungs of mallard ducks intranasally inoculated with LPAI viruses showed mild pneumonia, and lymphocyte and macrophage infiltration within 2 days. Immunostaining for viral nucleoprotein revealed intermittent staining of respiratory epithelial cells but no viral replication in the lung tissue.[24] This evidence indicates that the respiratory tract and not the lung tissue itself is the primary target of infection.

The species diversity of ducks may also play an important role in the pathogenicity of influenza viruses. Mallard duck embryos inoculated with LPAI virus have significantly lower mortality rates than inoculated Muscovy duck embryos; however, in regards to replication, the LPAI viruses behave in a different way. Viral antigens were found in the internal organs (nasal sinuses, pharynx, trachea, bronchi, lung, and air sacs) of the mallard duck embryos, but not in those of the Muscovy duck embryos. The reason for this mortality/virus replication paradox in mallard ducks is unclear but is in keeping with the evidence that mallard ducks are considered to be the main reservoirs of LPAI viruses in nature.[25]

Although several studies have examined the serum antibody response in both naturally and experimentally infected ducks, knowledge of the avian immune response to influenza viruses is very limited.[26] White Pekin ducks inoculated with an H7N2 LPAI virus developed negligible serum hemagglutination inhibition (HI) antibody titers despite fecal shedding of virus until day 7 post-inoculation. Animals reinoculated 46 days later with the same virus strain had a marked antibody response, but virus could not be isolated from any of the organs. These results and the lack of a secondary immune response after inoculation with formalin-inactivated virus suggested that the rapid immune response in re-infected birds may restrict influenza infection to short time scales.[3] It is noteworthy that prior infection does not protect ducks against subsequent infection with other virus subtypes. For example, ducks infected with an H4N6 subtype are protected from reinfection with the same virus, but they shed virions for 8 days after challenge with an H11N3 isolate.[27] These data have applications in the field, where isolation of influenza virus from migratory waterfowl is infrequent during the winter, potentially indicating the existence of a significant level of immunity in wintering ducks acquired from previous influenza infections. Further illustration of this is seen from a study

of wild waterfowl in Italy over six winter seasons, in which 17 of the 20 viruses isolated were of the H1N1 subtype, suggesting that the wintering ducks had some degree of immunity to the other subtypes of circulating influenza strains.[28]

Highly pathogenic avian influenza

Several experimental studies have investigated the pathogenicity of H5N1 HPAI viruses (isolated since 2002) in ducks. Cherry Valley Pekin ducks inoculated with a 2003 HPAI H5N1 strain isolated from duck meat at a quarantine inspection station in China developed neurologic signs, including blindness and head shaking, although none died. High virus titers were detected in the respiratory organs (lung and trachea), brain, liver, kidneys, and colon, and microscopic lesions were observed in the brain (viral encephalitis), heart (myocarditis with degeneration and necrosis of myocytes), and bursa (mild lymphoid follicular hyperplasia).[29] Viral neurotropism and pancreatotropism have been observed in multiple other studies of recent HPAI virus isolates. Ducks lethally challenged with these H5N1 HPAI viruses showed severe neurologic signs, including torticollis, incoordination, tremors, and seizures.[30,31] Immunohistochemistry positivity was recorded in the cerebrum and brain stem, and in situ hybridization detected virus in the neurons and glial cells of the cerebral gray matter, further confirming the strong neurotropism of post-2002 isolates.[30,31] Although the route of entry of virus into the central nervous system has not been determined, at least two different hypotheses have been proposed, including ascending transmission of virus via vagal, olfactory, and trigeminal nerve fibers, and penetration of the blood-brain barrier.[32,33]

Another recurring characteristic of recent H5N1 HPAI viruses in ducks is that virus titers are frequently higher in oropharyngeal swabs than in cloacal swabs.[30,34] Pharyngeal excretion of H5N1 HPAI viruses has been suggested to originate from the lung and/or air sac, as only these tissues have shown immunohistochemical evidence of virus replication. Preferential pharyngeal excretion suggests that pharyngeal swabs, as well as the customary cloacal swabs, should be taken when conducting surveillance of avian influenza viruses in wild ducks.[34] Otherwise, the prevalence of H5N1 HPAI may be underestimated. Additional studies of the role and rates of respiratory transmission of H5N1 HPAI viruses in ducks are needed, especially as they relate to cloacal excretion.

Interactions between ducks and H5N1 HPAI viruses

Role of ducks in the cross-continental spread of H5N1 HPAI viruses

In 1996, the parental virus (A/Goose/Guangdong/1/96; A/Gs/GD/1/96) of currently circulating H5N1 HPAI viruses emerged in southern China. Genetic evidence revealed that this virus originated from H5 LPAI viruses carried from northern Japan by wild ducks or other migratory birds.[15,35] A reassortant H5N1 HPAI virus subsequently emerged in poultry at farms and live animal markets in Hong Kong in 1997. Genetic analyses showed that the H5 HA gene of the reassortant virus was derived from an A/Gs/GD/1/96-like virus, while the remaining gene segments were derived from low-pathogenic viruses: the N1 NA gene came from A/Teal/Hong Kong/W312/97 (H6N1) virus, and the internal genes from A/Quail/Hong Kong/G1/97 (H9N2) virus.[36] The reassortant virus caused the first lethal infection in humans (6 deaths among 18 known cases) by direct bird-to-human transmission.[37] Between 1999 and 2002, H5N1 HPAI viruses with the H5 HA gene of A/Gs/GD/1/96-like viruses but with a diversity of genotypes in the other genes, re-emerged multiple times in Hong Kong.[37] The first indication of the spread of H5N1 HPAI viruses from domestic to wild species of aquatic birds occurred in Kowloon and Penfold Park in Hong Kong,[38] where 19 different duck species were infected. Some species, including the Red-Crested Pochard (*Netta rufina*), were highly susceptible (19/20 died), whereas others, including the Bahama Pintail (*Anas bahamensis*), were less susceptible (4/21 died).

The next major event in nature was the massive die-off of waterfowl at Qinghai Lake in China.[39–41] Four different genotypes of H5N1 HPAI viruses co-circulated in the waterfowl there; one of these became dominant and spread westward to India, Europe, and Africa. Notable features of the dominant Qinghai Lake H5N1 HPAI isolates were the acquisition of a lys627 mutation in the PB2 gene and the absence of pathogenicity in mallard ducks.[42] The lys627 mutation has been found to be associated with pathogenicity in mammalian species,[43,44] suggesting that it may have been generated while the virus was replicating in a mammal. The virus was likely transmitted from domestic ducks to wild ducks en route to Qinghai Lake.

The role of duck species in the westward spread of the Qinghai-H5N1 virus remains controversial. Circumstantial evidence from global wildlife surveillance supports the hypothesis that migratory birds, including wild ducks, have contributed to the current Eurasian endemic of H5N1 HPAI viruses.[45] Surveillance studies in Thailand in 2004 showed that most domestic grazing ducks infected with H5N1 HPAI viruses were asymptomatic[4] and that the initial spread of H5N1 HPAI viruses to chickens and humans corresponded to the movement of grazing ducks.[4,46] In fact, infected domestic ducks grazing on man-made wetlands (e.g., harvested rice fields and irrigation canals) may maintain the infection and spread it to wild birds that feed at the same sites. If these wild birds are migratory and experience limited morbidity, they in turn can disperse

HPAI viruses widely (Figure 2), as suggested by the high genetic similarity of HPAI isolates from Africa, Europe, and the Middle East to the Qinghai-H5N1 virus.[37] H5N1 HPAI viruses have not yet spread from Asia into North America. However, satellite telemetry of migrating Northern Pintails (*Anas acuta*) reveals that North American birds may cross into Russia[47] and share the nesting regions of Northern Pintails from Japan (alaska.usgs.gov/science/biology/avian_influenza/pintail_movements.html), where an H5N1 HPAI virus has been detected in Whooper Swans (*Cygnus cygnus*).[48]

Ducks and influenza control strategies

The evolution of H5N1 HPAI viruses by reassortment with LPAI viruses in the aquatic bird reservoir played an important part in the genesis of the multiple genotypes, clades, and subclades of Asian H5N1 HPAI viruses and is ongoing.[37] However, it is the ever-increasing poultry industry that provides the reassortment interface between wild and domestic avian species. The number of domestic ducks, chickens, and other poultry continues to increase, but biosecurity and separation of species is not always taken into account. Ducks raised in a closed high-biosecurity system in Thailand were protected from infection while H5N1 HPAI viruses were circulating among backyard ducks, open house ducks, and grazing ducks.[4] Therefore, biosecurity can prevent the spread of influenza viruses from wild to domestic ducks.

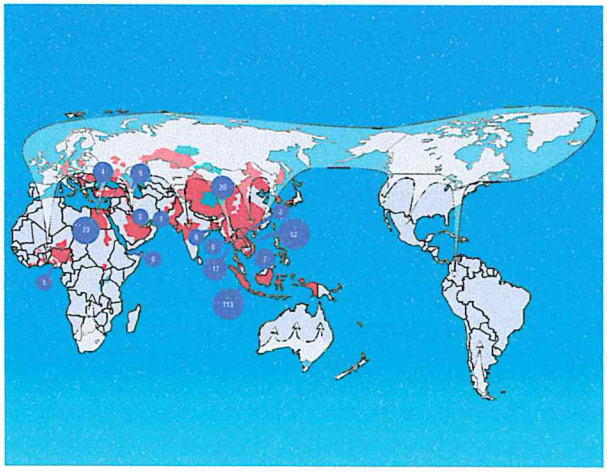

Figure 2. General breeding areas and fall migration patterns of wild ducks (white) and their relation to reports of H5N1 HPAI viruses. Most wild duck migrations occur in the northern hemisphere, where ducks generally fly north to breed during the summer and return south to spend the winter. With a few exceptions, ducks in the southern hemisphere are largely sedentary and rarely travel long distances. H5N1 HPAI viruses have spread westward from Southeast Asia into Europe and Africa. Circles indicate the number of human deaths attributed to H5N1 HPAI in the indicated countries (0 indicates infection but no mortality). Red marks reports of H5N1 HPAI in poultry; green indicates reports of H5N1 HPAI only in wild birds. Data were obtained from the World Health Organization (http://gamapserver.who.int/mapLibrary/app/searchResults.aspx) and Wikipedia (http://en.wikipedia.org/wiki/Anatidae).

Live poultry markets (wet markets) have been identified as a risk factor in the genesis of novel influenza viruses[49] and were identified as the source of the human outbreak of HP H5N1 viruses in Hong Kong. The ban on ducks, geese, and later, quail, together with improved biosecurity (clean days), have markedly reduced the influenza virus diversity in the Hong Kong wet markets.[37] Live poultry markets are being phased out in Hong Kong, and in the interim no live poultry can be carried over from 1 day to the next. Taiwan plans to close all live poultry markets by 2009, and Shanghai authorities are reducing the number of wet markets. Overall, however, the role of live poultry markets in the emergence and control of pandemic influenza has been largely ignored. Universal closure of live markets would make biological sense but is difficult in regions where refrigeration is not widely available.

Vaccination has been accepted as an option for the control of HPAI by the Food and Agriculture Organization of the United Nations and the World Organization for Animal Health. Emphasis is placed on the use of vaccine to facilitate eradication. The continued use of poultry influenza vaccines without an eradication plan has immediate benefits but also long-term consequences. The difficulty with continued vaccine usage is that it promotes genetic variation and allows shedding of virus in the absence of disease signs, thus creating the potential for epicenters of virus spread. Further, while both inactivated oil emulsion whole-virus H5 vaccines and recombinant NDV vaccines containing H5 HAs are highly efficacious in chickens, the recombinant NDV vaccines are less efficacious in ducks. The experience in Vietnam illustrates these points. In 2005, after 61 human cases of HP H5N1 virus infection and 19 deaths, universal poultry vaccination and reduction of duck populations were implemented, with dramatic results. In 2006, there were no human cases of H5N1 influenza. However, in 2007–2008, there were 14 human cases of HP H5N1 virus infection and 10 deaths (http://www.who.int/csr/disease/avian_influenza/country/cases_table_2009_03_11/en/index.html). The difficulty of controlling H5N1 HPAI viruses in ducks by vaccination and the enormous task of vaccinating sufficient poultry to maintain "herd immunity" remain daunting obstacles.

Influenza in humans is considered a non-eradicable disease due to periodic introduction of viruses from their natural reservoir, wild migratory birds – mainly ducks. The culling of wild birds is not an option. The sole current option is biosecurity and eradication of HP influenza from domestic poultry. The longer-term goal will be to understand the genetics of natural resistance in ducks and to introduce these traits into domestic animals.

Discussion and conclusions

There is consensus that the migratory waterfowl of the world (predominantly wild ducks) serve as the natural reservoirs of all influenza A viruses, which cause asymptomatic infection in these birds. Influenza viruses have probably co-evolved with ducks over millennia, establishing an equilibrium between hosts and parasites so that neither suffers a significant loss of biological fitness; the evidence being minimal signs of disease in the hosts and the annual isolation of common subtypes. The unanswered question is whether these migratory bird species are the reservoirs of the currently circulating H5N1 HPAI viruses. Until the emergence of the Asian H5N1 HPAI viruses, the available data indicated that each new outbreak of HP H5 or H7 virus died out or was stamped out and that subsequent HP strains emerged from the low-pathogenic H5 and H7 virus reservoir.

All species of birds tested to date support replication of some HP H5N1 strains and, providing they are not killed rapidly, could contribute to the spread of H5N1 HPAI viruses. The present review has concentrated on ducks, some species of which are susceptible to H5N1 HPAI virus–caused disease and death while others (e.g., mallards) are quite resistant.[34,50] Therefore, ducks that are infected but are naturally resistant to disease could have contributed to the spread of H5N1 HPAI viruses westward from Qinghai Lake in 2005 to Europe, Africa, India, and the Middle East. An unanswered question is whether the H5N1 HPAI viruses are being carried back to the duck breeding areas and are infecting the next generation. Extensive surveillance in the migratory pathways in Europe and Asia has provided no evidence of H5N1 HPAI viruses in the new generation of birds after the breeding season.

While all duck species tested to date are susceptible to lethal infection with H5N1 HPAI viruses, some species, including the mallard and Pintail ducks, are less susceptible and many survive. It is in these relatively resistant species that the H5N1 HPAI viruses could be maintained. However, surveillance studies to date in these species have detected no H5N1 HPAI viruses in breeding or juvenile birds. Experimental studies show that some mallard ducks continue to shed virus for up to 17 days, allowing the development of humoral immunity and subsequent selection of antigenic variants within the same bird.[23] If this occurs, it could be argued that a limited number of ducks would be sufficient to maintain the virus in nature. Continued surveillance is needed to determine whether H5N1 HPAI viruses are maintained in nature by a small number of naturally resistant ducks that are long-term virus shedders.

While naturally resistant ducks can be argued to have been involved in the spread of H5N1 HPAI viruses from Qinghai Lake to the rest of Eurasia, it is difficult to explain why H5N1 HPAI viruses have not spread to susceptible species in the Philippines, Australia, and the Americas, which are on the direct flyways of migratory waterfowl. More than 6·6 million birds migrate from Eastern Asia to Alaska yearly (alaska.usgs.gov/science/biology/avian_influenza/migrants_tables.html). Despite intense surveillance in Alaska, no H5N1 HPAI viruses have been detected to date, and influenza viruses of Eurasian lineage are introduced into the Americas only rarely.[18] The major spreaders of influenza in domestic poultry are humans. As described by Chen *et al.* (2006), from the molecular epidemiology data, transmission of H5N1 influenza in domestic poultry is perpetuated largely through movement of poultry and poultry products rather than continued reintroduction of viruses from migrating birds.[42]

The alternative reservoir, the domestic duck population, has a higher likelihood of perpetuating H5N1 HPAI viruses. Prospective surveillance continued to isolate H5N1 HPAI viruses from apparently healthy ducks, geese, and chickens in Southeast Asian poultry markets during 2004–2006. Naturally resistant ducks might not be expected to show disease signs, but the absence of morbidity in highly susceptible geese and chickens is surprising. The widespread use of vaccine in chickens may explain this observation, but vaccine has been used less in geese and ducks. An alternative possibility is that the susceptible poultry had cross immunity as the result of exposure to co-circulating influenza viruses. Experimental studies have demonstrated that chickens previously infected with H9N2 virus and then inoculated with H5N1 HPAI virus become infected and shed virus but do not show disease signs.[51] The continuing co-circulation of multiple subtypes of LPAI viruses in domestic poultry could explain why a small percentage of susceptible domestic species can appear healthy while shedding transmissible levels of H5N1 HPAI virus. To provide answers to these unresolved questions about the role of domestic species, it will be necessary to establish long-term prospective surveillance in domestic poultry in the hypothetical "epicenter zones," including China, Indonesia, Vietnam, Egypt, and Nigeria. It is noteworthy that in these regions, control of H5N1 HPAI virus is attempted by the continuing use of vaccines.

An area that has been surprisingly neglected is the genetics of ducks, the ultimate reservoir species of all influenza A subtypes. The wild duck reservoir contributes some or all of the genes of future pandemic strains in humans and future panzootic strains in domestic poultry. Immune mechanisms in ducks are currently understudied, and the molecular basis of resistance of some duck species to lethal infection is unresolved. Sequencing of the genome of the mallard duck is warranted, as it could provide insight into the factors that contribute to markedly reduced influenza virus pathogenicity.

Because wild ducks are the main reservoir of all influenza A viruses and the ultimate source of future pandemics, members of the scientific community who are interested in understanding the emergence and control of pandemic influenza should direct their attention to the following questions:

- Do ducks (wild or domestic) serve as the reservoirs of the Asian H5N1 HPAI viruses?
- What genomic characteristics of ducks are associated with natural resistance in some species?
- Is antigenic diversity driven naturally in ducks or is it the consequence of vaccine usage?
- What dose of vaccine antigen is required to prevent transmissible levels of excretion of H5N1 HPAI viruses by ducks of different species (and geese and swans)?
- Is eradication of Asian H5N1 HPAI viruses achievable?
- Can the use of transgenic animals containing the natural resistance gene(s) of mallard ducks prevent pathogenic influenza virus infection?

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Hyde County Board of Commissioners
AGENDA ITEM SUMMARY SHEET

Meeting Date: **January 4, 2016**
Presenter: **Commissioner John Fletcher**
Attachment: **No**

ITEM TITLE: **COMMISSIONER CONCERNS**

SUMMARY: Commissioner Fletcher will discuss issues of concern:

a) Duck Gate
b) Dashboard Cameras
c) EMS Finance

RECOMMEND: Discussion.

Motion Made By:	___ Earl Pugh, Jr.	**Motion Seconded By:**	___ Earl Pugh, Jr.	**Vote:**	___ Earl Pugh, Jr.
	___ Barry Swindell		___ Barry Swindell		___ Barry Swindell
	___ Dick Tunnell		___ Dick Tunnell		___ Dick Tunnell
	___ Ben Simmons		___ Ben Simmons		___ Ben Simmons
	___ John Fletcher		___ John Fletcher		___ John Fletcher